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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,027	05/23/2001	Richard W. McCoy	242-140	9989
1009	7590	12/02/2003	EXAMINER	
KING & SCHICKLI, PLLC 247 NORTH BROADWAY LEXINGTON, KY 40507			ROYAL, PAUL	
			ART UNIT	PAPER NUMBER

3611

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/864,027

Applicant(s)

MCCOY ET AL.

Examin r

Paul Royal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____ .
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . 6) ☐ Other: ____ .

DETAILED ACTION

Response to Response

1. The response filed on 24 September 2003 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7-9 and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Steiler (US 6,080,014).

Steiler teaches a trailer hitch receiver assembly for towing a trailer behind a towing vehicle, comprising:

a frame member (3) including a hitch receiver box (4);

at least one mounting bracket (2) carried on the frame member for securing the frame member to the vehicle;

utility power outlets (16, 16A, 16B, 16C) carried on the first and second sides of frame member (3); and

hinged covers (HCOVER, see Examiner annotated Figure 9).

Note, where Steiler teaches power outlets which are electrical connectors, it is understood to be inherent that the power outlet of Steiler is able to pass AC or DC power, including standard VAC or DC power and standard 12 VDC through each of the

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power outlets because the electrical conductivity of the pins within the connectors is not limited to a specific type of applied power and Steiler teaches, in table 1, an example of a range of pins which can be carried within it's variety of connectors, thereby presenting a range of connector/pin combinations capable of carrying either AC or DC power.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 4-5, 15-17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belinky et al. (US 5,904,261) in view of Hughes (US 5,766,020).

Belinky et al. teaches a trailer hitch receiver assembly for towing a trailer behind a towing vehicle, comprising:

a frame member (20) including a hitch receiver box;

at least one mounting bracket (MB1, see Examiner's annotated Figure 1) carried on the frame member for securing the frame member to the vehicle; and

a utility power outlet (40) carried on the frame member (20).

Belinky et al. does not teach a trailer hitch receiver assembly including a trailer light plug.

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Hughes teaches a trailer light plug (10) mateable with a plurality of trailer wiring harness connector receptacles and providing visual diagnostic indication observance by the user.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailer hitch receiver assembly of Belinky et al., to include a trailer light plug, as taught by Hughes, providing visual diagnostic indication observance by the user.

Note, where Belinky et al. teaches a power outlet which is an electrical connector, it is understood to be a design choice to supply AC power, including 110 VAC or DC power, including 12 VDC through a "standard" power outlet.

Note using the power of the outlet(s) for powering equipment other than a trailer is understood to merely be intended use and is given little patentable weight.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Belinky et al. and Hughes, as applied to claim 2, in further view of Witkowski et al. (US 6,171,118).

Belinky et al. and Hughes, as applied to claim 2, includes all the limitations of claim 3 except wherein the power outlet includes a hinged cover.

Witkowski et al. teaches a power outlet (12) for mounting to an automobile body having a hinged cover (35) to protect the outlet from the environment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailer hitch receiver assembly of Belinky et al. and Hughes, as

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applied to claim 2, to include the power outlet having a hinged cover, as taught by Witkowski et al., to protect the outlet from the environment.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Belinky et al. and Hughes, as applied to claim 2, in view of Witkowski et al. (US 6,171,118).

Belinky et al. and Hughes, as applied to claim 2, includes all the limitations of claim 6 except wherein the power outlet includes a hinged cover.

Witkowski et al. teaches a power outlet (12) for mounting to an automobile body having a hinged cover (35) to protect the outlet from the environment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailer hitch receiver assembly of Belinky et al. and Hughes, as applied to claim 2, to include the power outlet having a hinged cover, as taught by Witkowski et al., to protect the outlet from the environment.

6. Claims 11, 13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belinky et al. in view of Hughes (US 5,766,020).

Belinky et al. teaches a method of powering an electrical device from a trailer hitch receiver assembly, comprising:

providing a trailer hitch receiver assembly (22) with a utility power outlet (40), and
powering the utility power outlet from the towing vehicle to which the trailer hitch assembly is connected.

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Belinky et al. does not teach providing a trailer hitch receiver assembly including a trailer light plug.

Hughes teaches a trailer light plug (10) mateable with a plurality of trailer wiring harness connector receptacles and providing visual diagnostic indication observance by the user and powering the utility outlet with 110 volts AC power from a power inverter on the towing vehicle, see column 4, lines 42-47, to supply an appliance with AC voltage.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of powering an electrical device from a trailer hitch receiver assembly of Belinky et al., to include a trailer light plug, as taught by Hughes, providing visual diagnostic indication observance by the user and to include powering the utility outlet with 110 volts AC power from a power inverter on the towing vehicle, as taught by Hughes, to supply an appliance with AC voltage.

Note, where Belinky et al. teaches a power outlet which is an electrical connector, it is understood to be a design choice to supply AC power, including 110 VAC or DC power, including 12 VDC through a "standard" power outlet.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Belinky et al., and Hughes, as applied to claim 11, in view of Anderson, Jr. (US 4,936,796).

Belinky et al., and Hughes, as applied to claim 11, teach all the limitations of claim 12 except powering the utility outlet with 12 volts DC power from a battery on the towing vehicle.

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Anderson, Jr. teaches powering the utility outlet (12) with 12 volts DC power from a battery (B) on the towing vehicle to provide a DC power source.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailer hitch receiver assembly of Belinky et al., and Hughes, as applied to claim 11, to include powering the utility outlet with 12 volts DC power from a battery on the towing vehicle, as taught by Anderson, Jr., to provide a DC power source.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steiler, as applied to claim 7, in view of Hughes (US 5,766,020).

Steiler, as applied to claim 7 teaches all the limitations except a trailer hitch receiver assembly including a trailer light plug.

Hughes teaches a trailer light plug (10) mateable with a plurality of trailer wiring harness connector receptacles and providing visual diagnostic indication observance by the user.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailer hitch receiver assembly of Steiler, to include a trailer light plug, as taught by Hughes, providing visual diagnostic indication observance by the user.

Note, where Steiler teaches a power outlet which is an electrical connector, it is understood to be a design choice to supply AC power or DC power through the power outlet because it is inherent that the electricity will be AC or DC.

It would have been obvious to one of ordinary skill in the art at the time of the invention to select either AC power or DC power for the electricity applied to the plugs.

Response to Arguments

9. In response to applicant's argument, that Steiler (US 6,080,014) does not teach the AC or DC utility power outlet as claimed, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Applicant's argument "applicant's utility power outlet is structurally different from a nontrailer connection" is not persuasive since applicant does not recite any structural limitations which distinguish the outlet as claimed and the Examiner is not aware of connectors or connecting methods which are known to be "nontrailer" connections or connectors. As understood by the Examiner, the art of interconnecting trailers and connecting trailers to other items, such as electrical recharging centers or camp sites, or providing power from the trailer has not been standardized so that one of ordinary skill would know what is considered a nontrailer connector or connection. Applicant should provide documentation as to what is known to be a nontrailer connector or connection.

Applicant's arguments against using Steiler because "... there is no suggestion that either DC or AC current could be run through those connections ..." is contrary to

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the understanding that an electrical connector is designed to pass electricity. To be clear, where Steiler teaches an electrical connector, it does not have to recite that the connector specifically passes alternating current (AC) or direct current (DC) because it is inherent to one of ordinary skill in the art that an electrical connector passes electricity/electric current, (AC and DC unless otherwise specified). Applicant's grasp of this core principal would greatly enhance the efforts to prosecute this patent application. Applicant's argument suggests applicant has a perspective of the application of AC and DC electricity to electrical connectors that has not been clearly communicated to the Examiner. For example, where applicant states "... there is no suggestion that either DC or AC current could be run through those connections" it would be helpful if applicant explains why applicant thinks Steiler would present an electrical connection but not run AC or DC through the connection.

Applicant's additional argument that Steiler does not present a "utility type" outlet is also non-persuasive because the connector of Steiler can be used as a "utility" type connector. There are no claimed limitations which distinguish the instant invention's outlet from Steiler because the concept of "utility" is one of intended use, where how the connector is used determines its appropriate type, and the connector of Steiler can clearly be used for "utility" type connections.

Applicant's arguments against the prior art Belinky et al. (US 5,904,261) and Hughes (US 5,766,020) which state, in summary and paraphrased, that "the Examiner's position is *subjective speculation* that it would be a design choice to apply AC power or DC power through the power outlet", is non-persuasive because one of ordinary skill in

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the art understands that electrical connectors are not limited to use in a single specific application, such as only for trailers, or only for AC or DC power. Further in determining whether a particular connector is to be used, the electrical environment (i.e., current, voltage, and power requirements, wiring to be interconnected, size of the connector pins needed to carry the proper amount of current, etc) must be assessed, and then a determination (or design choice) can be made as to what connector is appropriate to use. In the claims as presented, applicant merely recites the type of electricity the connector must pass and the intended use, (such as "for powering equipment other than a trailer"), which in total presents no limitations not readily met by the connector presented in Belinky et al. and/or Hughes.

With regards to the question of the "mating trailer", one of ordinary skill would obviously connect the connector to an alternate device when necessary because the usefulness of a connector, in place of unitary wiring, is that electrical subsystems can be disconnected, reconfigured, and reconnected as needed, for example to draw power from or deliver power to a secondary, nonvehicle component. Since the claims of the instant application only recite various types of AC or DC power outlets, it does not matter what is attached to the power outlet and this makes the "mating trailer" issue mute.

Applicant's argument that the Examiner must cite objective evidence that an electrical connector will serve more than a single purpose appears to miss that point that the connector of Belinky et al. is primarily presented for it's ability to pass electricity since the claim limitations are directed to a power outlet and supplementally include an

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intended such as “for powering equipment other than a trailer”. Clearly the connector of Belinky et al. can be used for any purpose which requires a connector which passes electricity.

Applicant’s arguments with respect to the prior art Witkowski is not persuasive because the references of Belinky et al. and Hughes provide a trailer hitch receiver and a trailer light plug with Witkowski providing a hinged cover for the power outlet. In summary, applicant repeatedly argues it would be improper to combine Belinky et al. with Hughes. Note that: 1) Hughes presents a power adapter specifically for use with vehicle electrical systems and for combining it with existing vehicle electrical wiring, 2) Hughes teaches and shows a standard AC utility power outlet in Figures 1a and Figure 2., and 3) there are no industry standards which make clear what applicant considers the various power outlets therefore the claims are interpreted broadly.

Applicant is advised to review the language of patent claims in the electricity and electrical connector art (see classes 439, 307, and 191, as well as the class definitions). Applicant should observe that electrical connectors are not classified or claimed as “AC” connectors or “DC” connectors. Applicant’s use of AC or DC in the claims of the instant invention do not alter the physics of a connector being able to pass both AC and DC. Further, applicant’s assertion that if a patent which includes an electrical connector does not recite any particular type of current (AC or DC) applicant does not understand how the connector is understood to be able to pass electrical current indicates applicant might benefit from reviewing existing electrical connector related patents.

Please note, this is not to indicate that applicant does not understand the art of electrical connections, but rather to ask that applicant examine the existing patents to determine how best to structure claim language the Examiner finds acceptable and consistent with existing patents and USPTO Practice and Procedure.

To be clear, claim terminology such as “DC utility power outlet”, “AC utility power outlet”, and “trailer light plug” do not provide any limitations which cannot be met by the electrical connectors in the applied prior art because what distinguishes the “DC utility power outlet”, “AC utility power outlet”, and “trailer light plug” from the applied prior art is the use applicant intends for the connector. For example the DC utility power outlet is understood to be a connector through which applicant intends to send DC power for use with systems considered “utility” systems. The “DC” and “utility” aspects of the claimed language is intended use language which does not present any limitations unmet by the prior art applied by the Examiner.

Applicant further argues against the combination of Belinky et al. and Hughes as providing a utility outlet in addition to a trailer light plug. Applicant's arguments are not persuasive because Hughes clearly teaches it is well known for a vehicle electrical harness to include power outlet elements (i.e., “utility power outlet” or household appliance outlet) as well as vehicle to vehicle electrical system coupling elements (i.e., for providing electricity for trailer lighting, brakes and other electrical systems), see column 1, line 1 – column 3, line 28. It therefore would have been obvious to one of ordinary skill to add the additional outlet of Hughes to Belinky et al.. Note also, that Belinky et al. is primarily a connector and connector mount which suggests allowance

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for multiple connectors to be connected to the electrical wiring harness of Belinky et al., including the addition of a trailer light plug or more power outlets.

Note in the previous Office Action the Examiner stated:

"Applicant repeatedly argues there is a difference between a connector which can pass AC and a connector which can pass DC although no additional elements, such as a capacitor or diode are recited - where these additional elements are commonly used to allow only AC or DC to pass through a connection. In order for the Examiner to review the merits of applicants arguments over the difference between a connector which can pass AC and a connector which can pass DC, applicant is requested to provide information which explains how and why a connector which can be used to pass DC cannot be used to pass AC. "

The well presented and argued response filed 24 September 2003 did not address this issue but overall is understood to be a genuine attempt to further prosecution of the merits of the application. To provide a complete prosecution history, the Examiner request applicant address this issue.

Finally, the Examiner reasserts the arguments presented in the last Office action.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

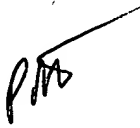
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Royal whose telephone number is 703-308-8570. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on 703-308-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.


P. Royal
November 26, 2003

Paul Royal
Examiner
Art Unit 3611



LESLEY D. MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

FIG-1

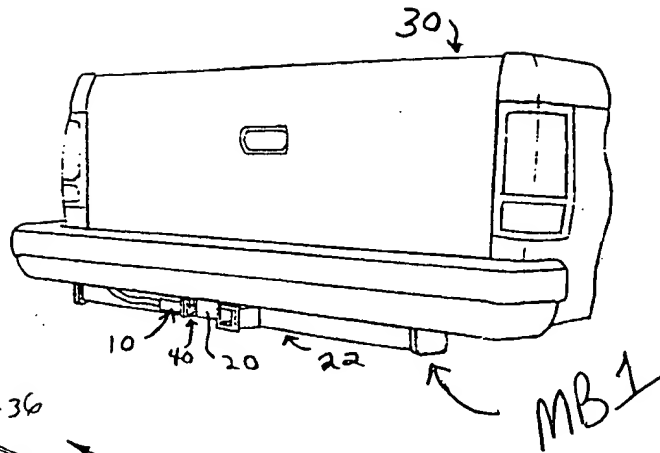


FIG-2

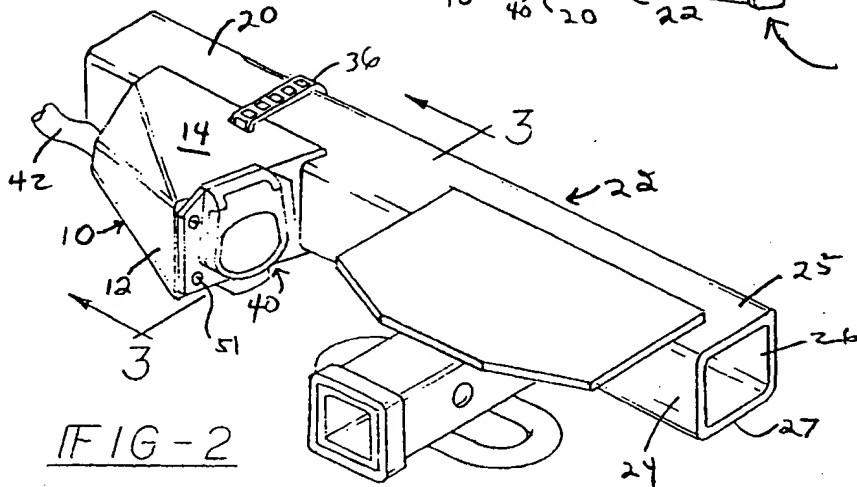


FIG-3

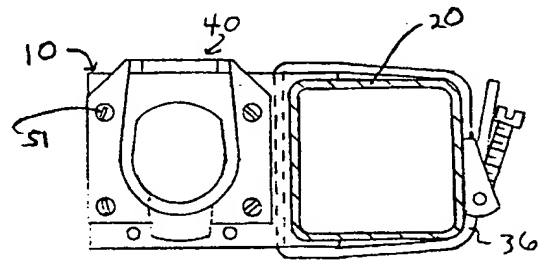


FIG-4

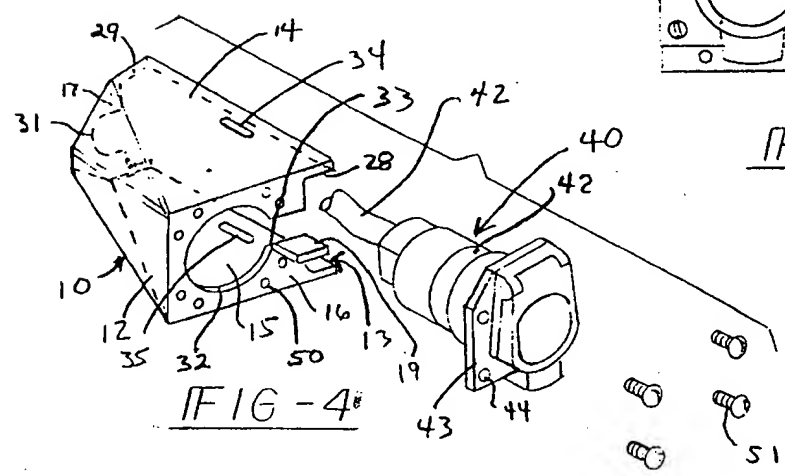


Fig. 10.

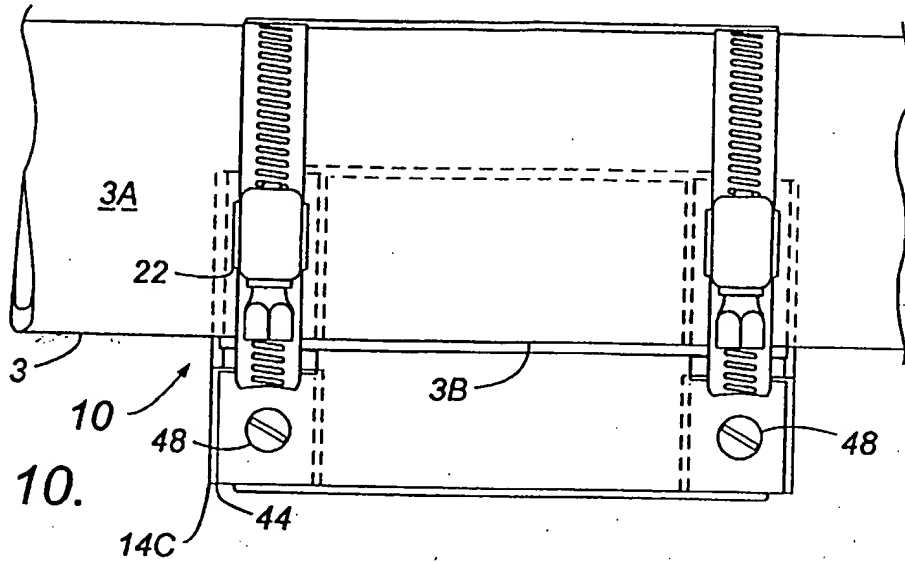


Fig. 6.

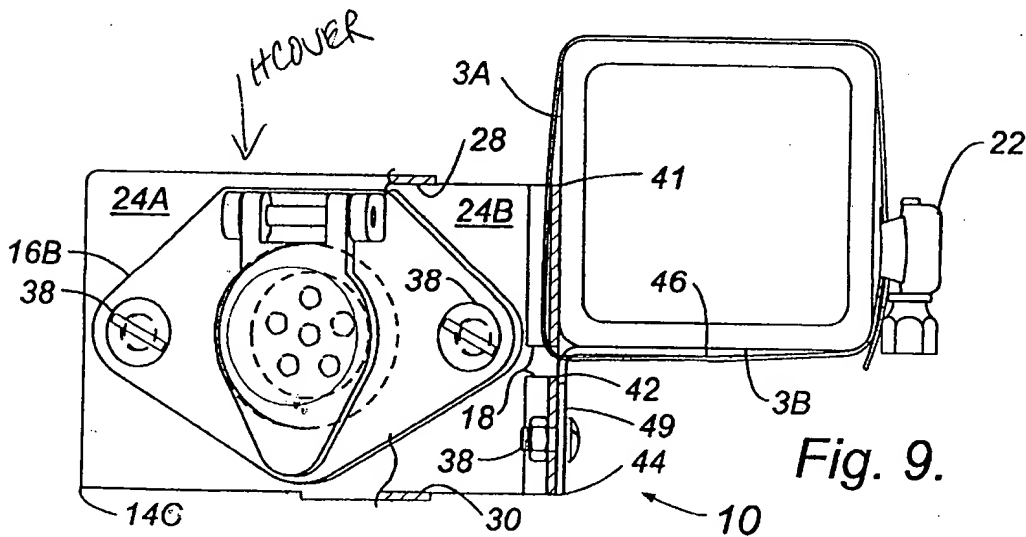
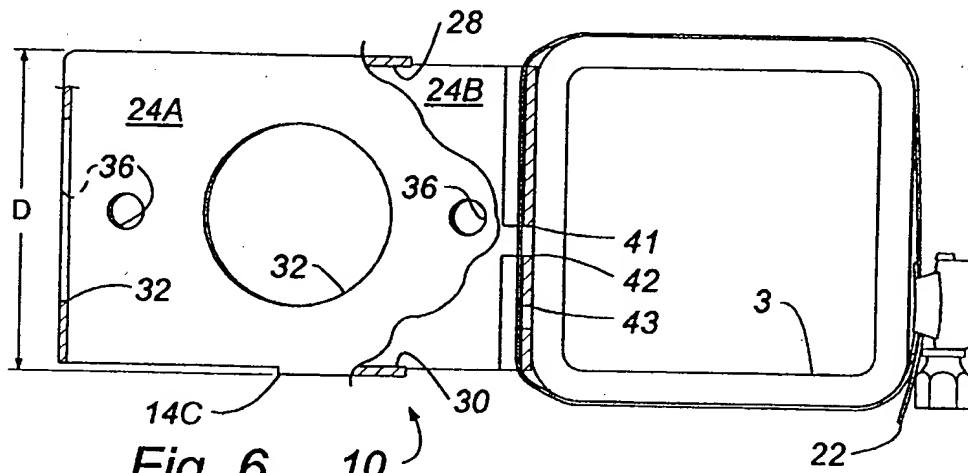


Fig. 9.